Data-on-Demand Geographic Information System

U.S. Army Corps of Engineers

Presented by:
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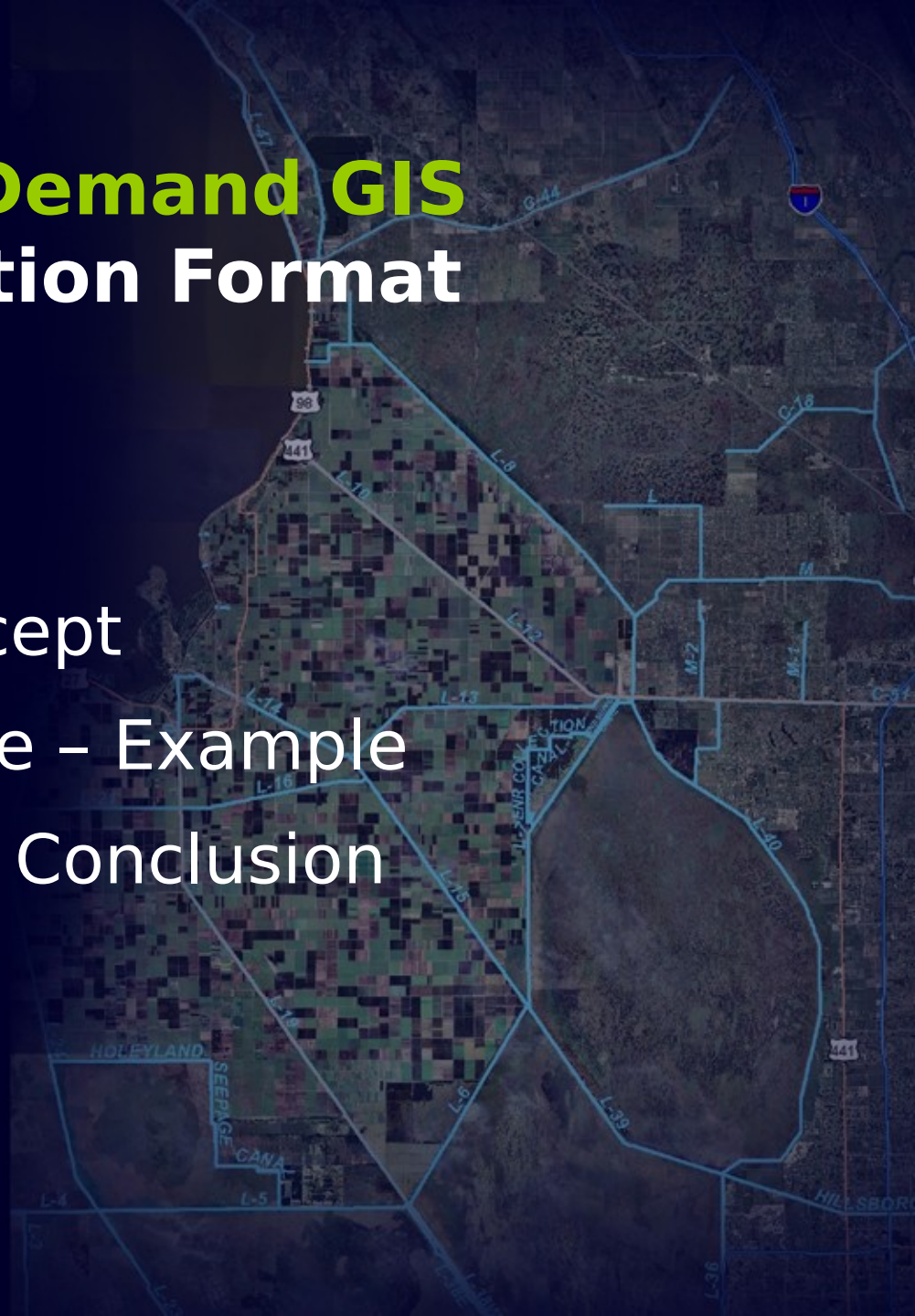
Jacksonville District

US Army Corps of Engineers
Jacksonville District

System-Wide Water SWWRP Resources Program

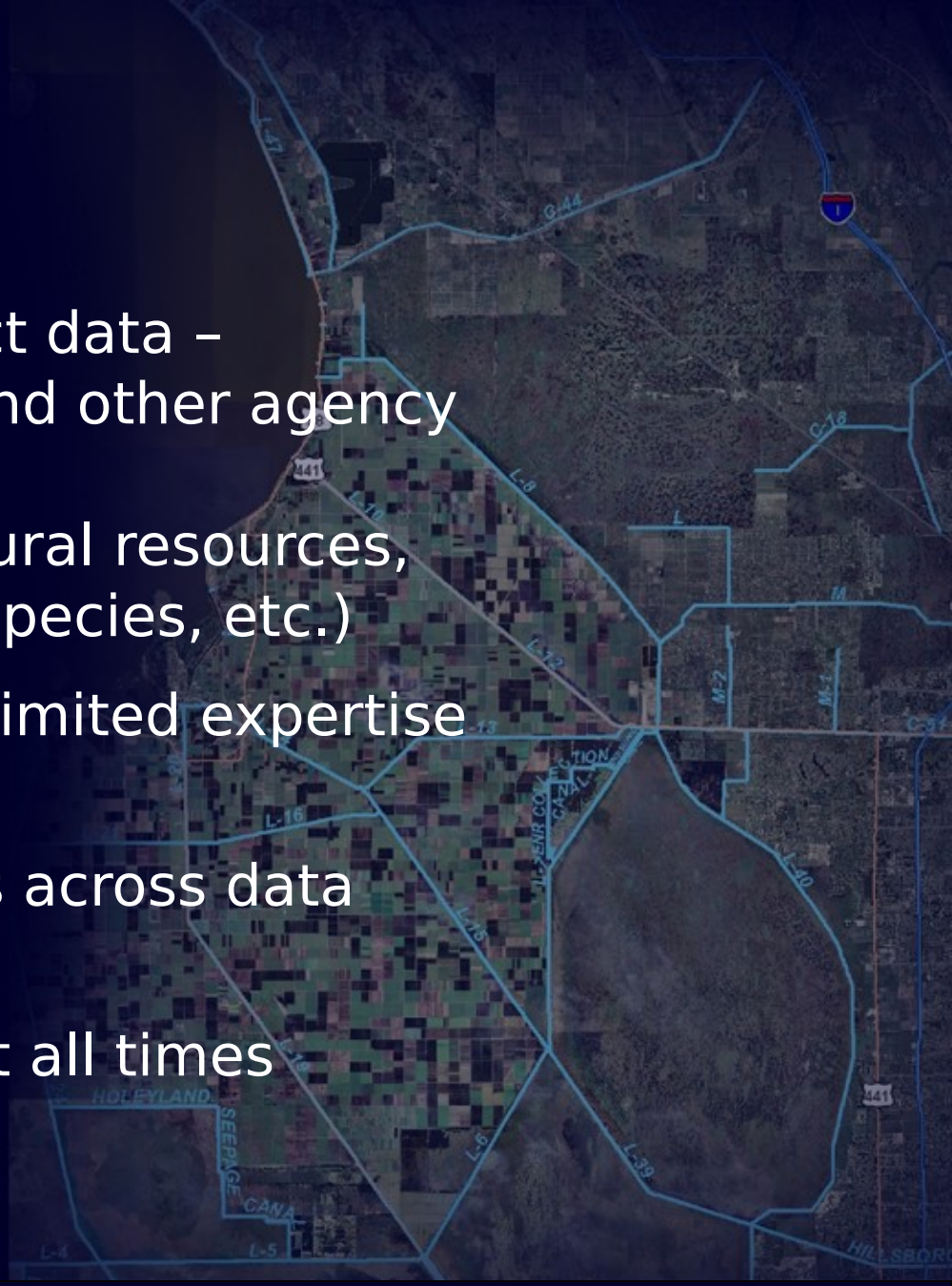
Data-on-Demand GIS
Presentation Format

- The Need
- System Concept
- WQ Prototype – Example
- Benefits and Conclusion



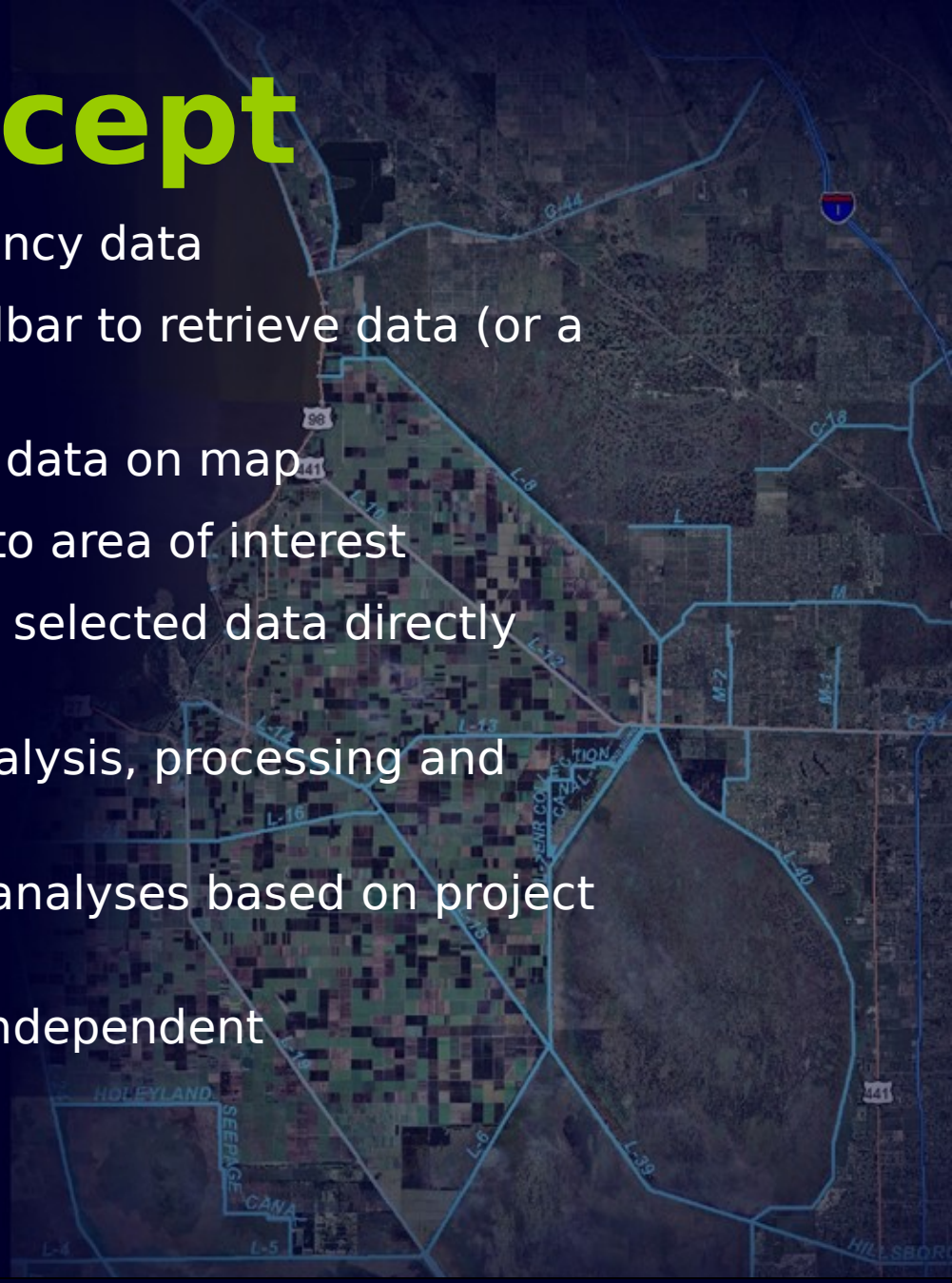
The Need

- Central access to project data – including Corps-wide and other agency data
  (e.g. water quality, cultural resources, wetlands, endangered species, etc.)
- A system that requires limited expertise in access protocols
- Consistent expectations across data types
- Current data required at all times



System Concept

- Retrieves Corps and other agency data
- Uses WEB services/ArcGIS toolbar to retrieve data (or a local server for District data)
  - Displays Metadata as point data on map
  - Provides ability to zoom in to area of interest
  - Enables users to download selected data directly from source
  - Provides a basic level of analysis, processing and translation of data
  - Allows for further levels of analyses based on project needs
  - Developed to be platform independent



System-Wide Water SWWRP Resources Program

US Army Corps of Engineers
Jacksonville District

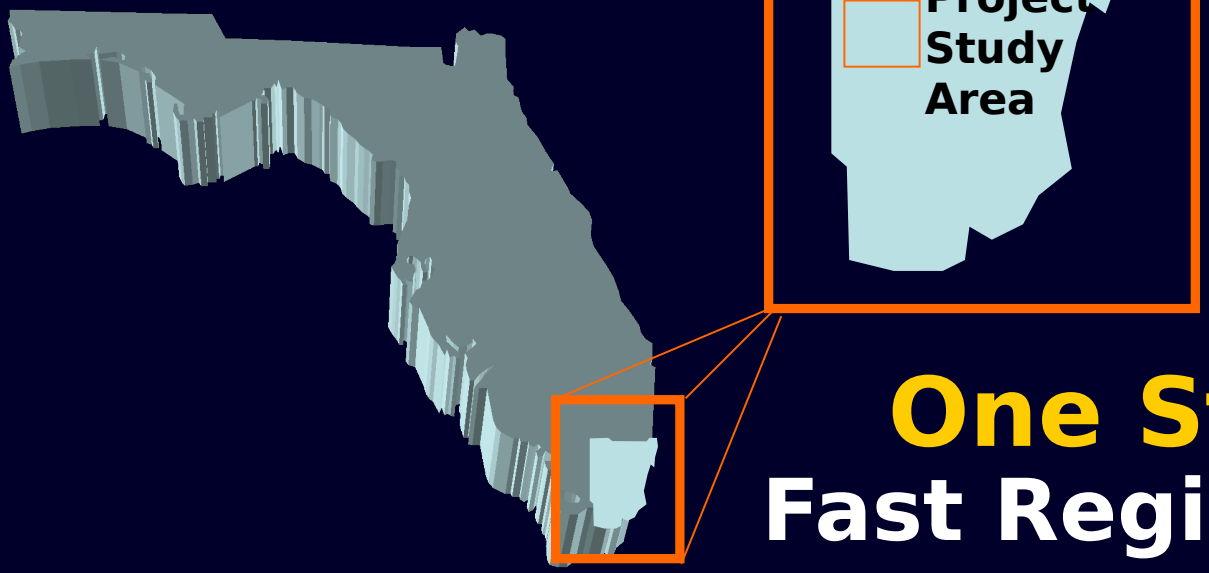
DBHYDRO: SFWMD
(West Palm Beach)

STORET: EPA
(Atlanta)

Any relevant data set
PROJECT HISTORY
Jacksonville Distric

HTRW: FDEP
(Tallahassee)

Virtual Integrated GIS Database



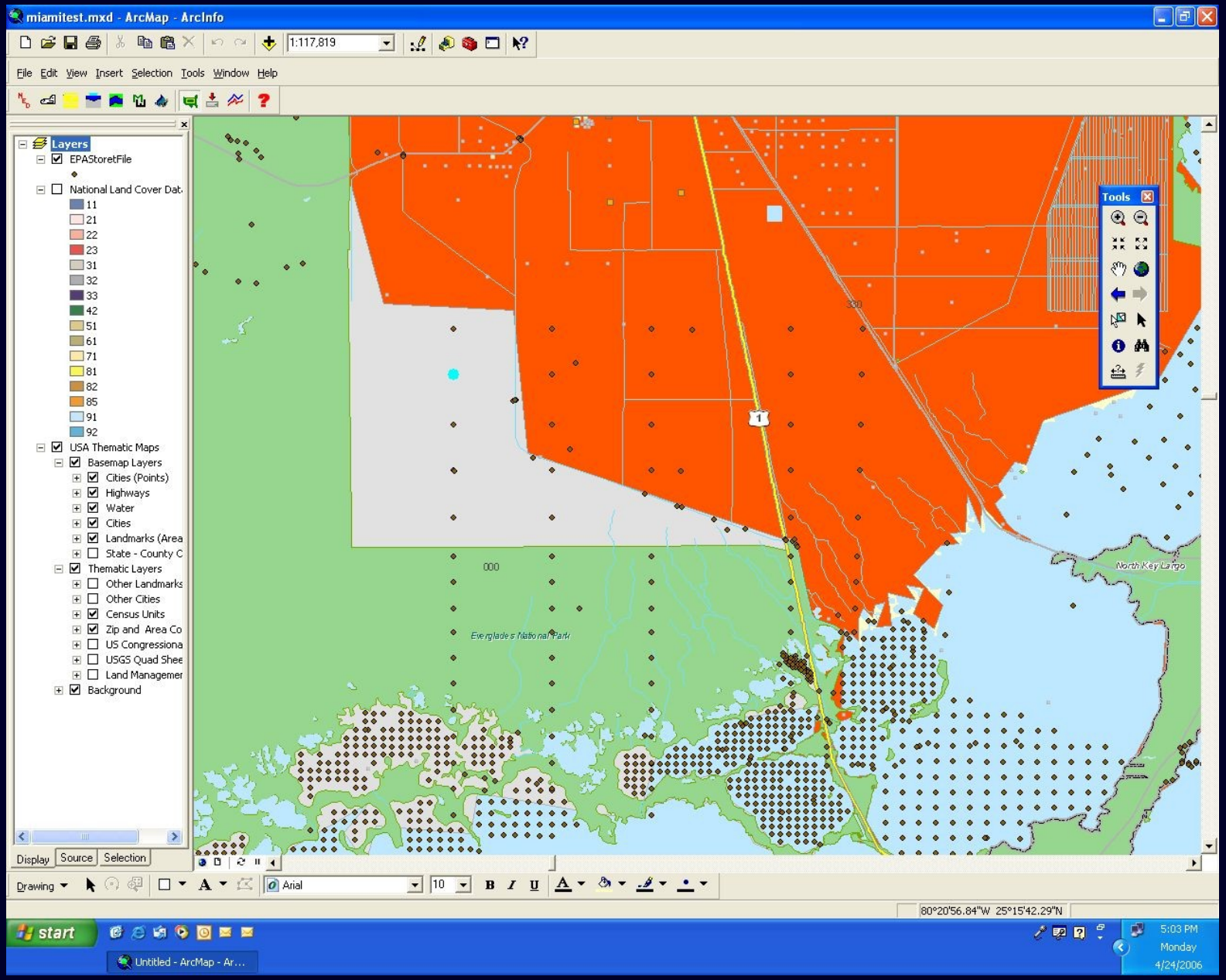
Independent data structures are reformatted into one consistent framework

One Stop Access

Fast Regional Project Data Access (Internet & Local Server)

Any web service linked to a federal database provides data access Corps-wide

independent of the district in which the inquiry is initiated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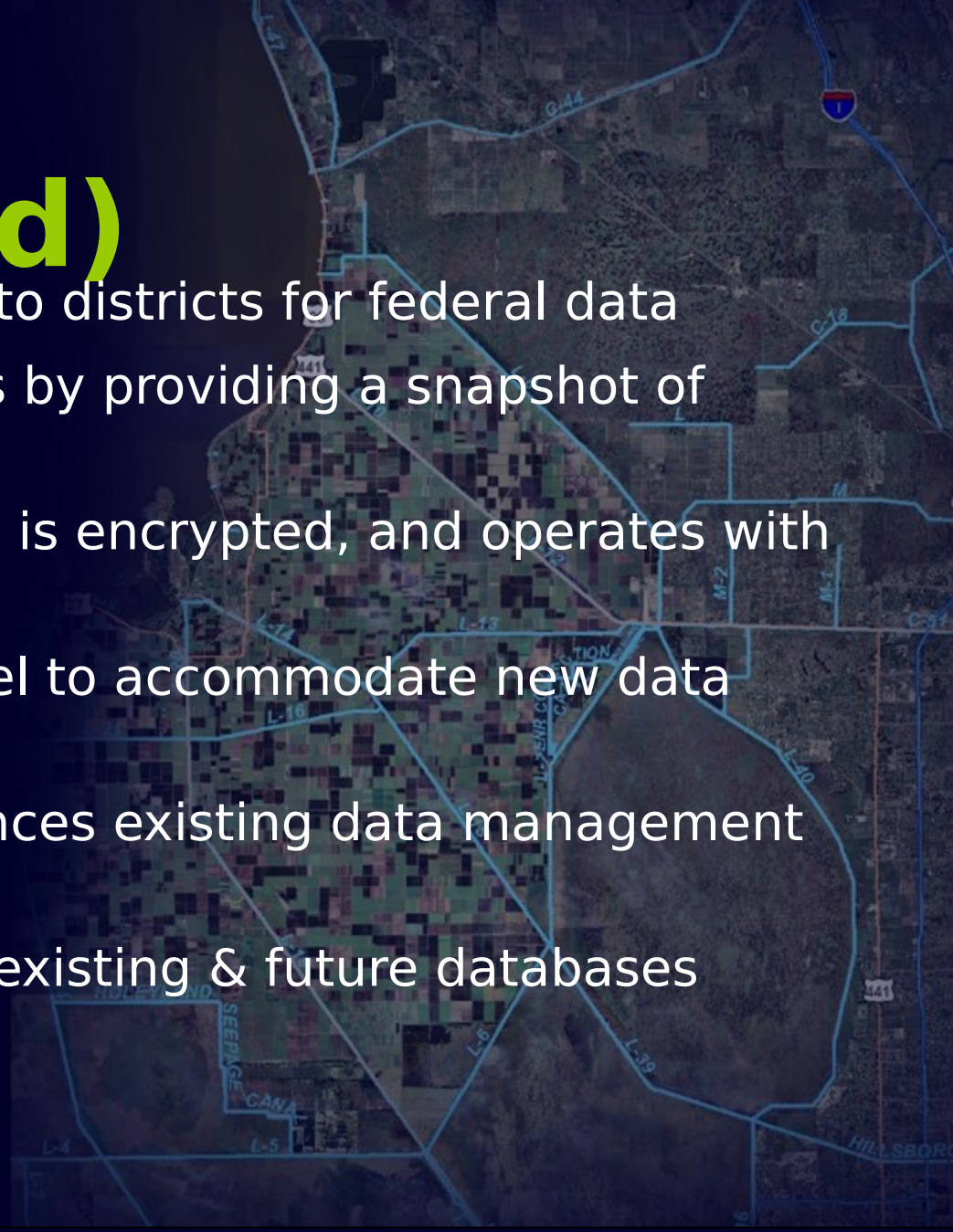
Benefits

- Quick access to data without being an EXPERT
- Delivers data tailored to project boundaries
- Provides a central clearinghouse GIS data portal for USACE
- Provides access to most current data
- Minimal maintenance required (periodic upgrades provided)
- Prevents costly replication of data
- Streamlines access to project area history

Benefits (Continued)

- Minimal additional cost to districts for federal data
- Helps identify data gaps by providing a snapshot of available data
- Works through firewalls, is encrypted, and operates with authentication
- Built on a scalable model to accommodate new data sources
- Toolbar extension enhances existing data management systems
- Totally compatible with existing & future databases

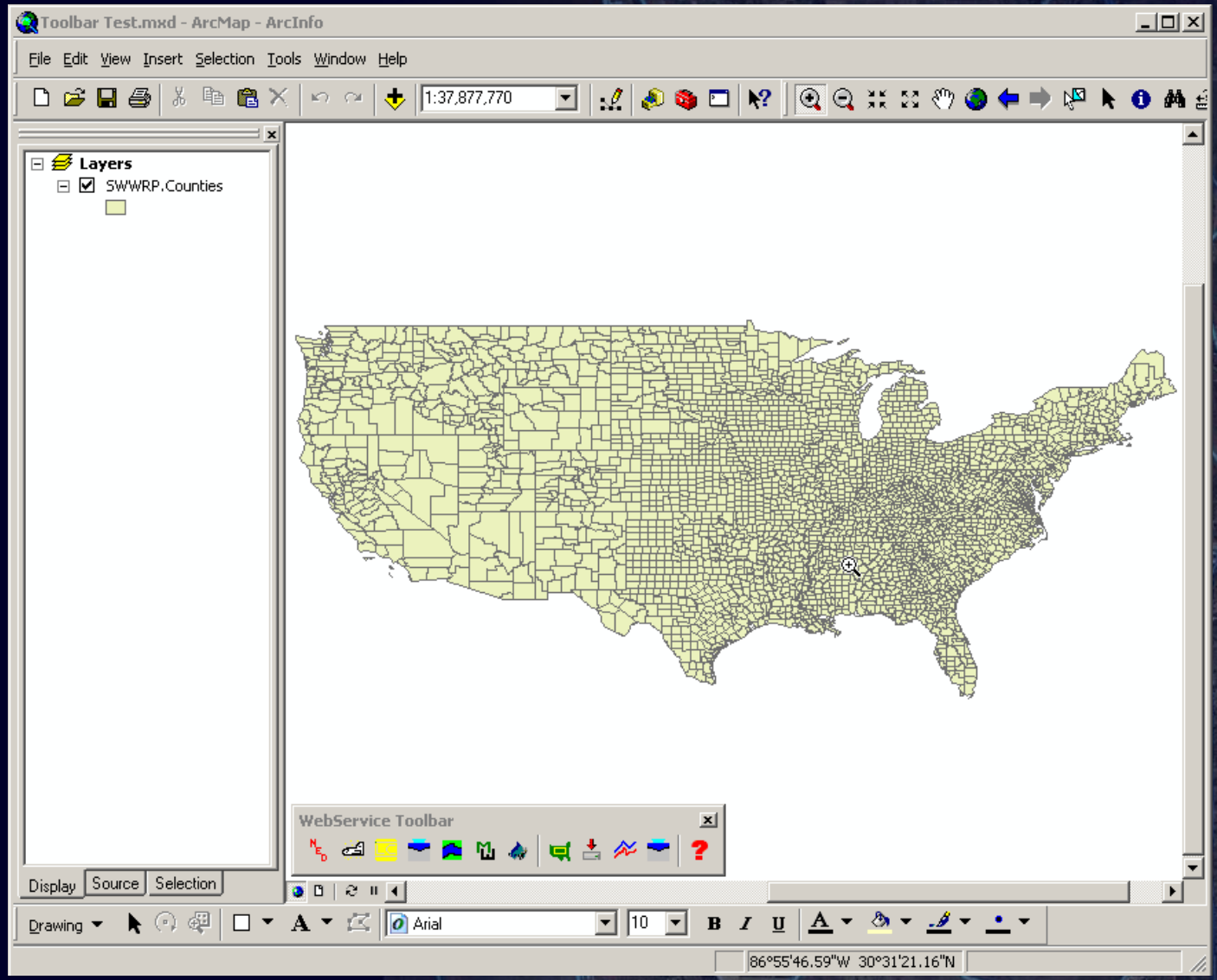


Examples of National Databases

- NED
- Land Cover

- USGS
  - Soils
  - Sediment
  - Image
  - Geochem

- STORET
  - Wq
  - Wetlands
  - Biological



Data on demand GIS

Future

- Establish service level agreements with various data sources (EPA, USGS, FWS, state etc.)
- Push data sources to provide more Metadata
- Add more data sources
- Integrate regional studies
- Link toolbars to other Data Management Systems

Conclusion

- A virtual database that can be located anywhere and can retrieve almost any data type specific to a certain geographic location/project area
- Any web service linked to a federal database provides data access Corps-wide independent of the district in which the inquiry is initiate
- Data-on Demand Extension is compatible & can enhances existing Database Management Systems

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